

REMARKS

The foregoing Amendment After Final and the following Remarks are submitted in response to the Office Action issued on March 1, 2006 in connection with the above-identified patent application, and are being filed within the three-month shortened statutory period set for a response by the Office Action.

Claims 1-3, 5, 8, 9, 13, 14, 16, and 19 remain pending in the present application. Independent claims 1 and 13 have been amended to recite additional subject matter of the application.

Applicant respectfully submits that no new matter has been added to the application by the Amendment. In particular, Applicant respectfully submits that 'the body being formed from a steel material' is disclosed in the application as filed at least at paragraph 24 on page 7; that 'each lateral side of the body being substantially linear prior to being flowed toward the corresponding lateral edge of the clip' is disclosed in the application as filed at least in connection with Fig. 3B; and that 'the steel material of the body being sufficiently ductile such that each lateral serration of each lateral edge is substantially completely contacted by the respective lateral side of the body after such lateral side is flowed toward the corresponding lateral edge of the clip having such lateral serration' is disclosed in the application as filed at least in connection with Figs. 4B and 4D.

Applicant respectfully requests reconsideration and withdrawal of the final rejections of the claims, consistent with the following remarks.

The Examiner has finally rejected claims 1 and 13 et seq. under 35 USC § 103 as being obvious over Oba et al. (U.S. Patent No. 6,250,721). Applicant respectfully traverses the § 103(a) rejection insofar as it may be applied to the claims as amended.

Independent claim 1 recites a wheel-balancing weight for being mounting to a wheel with a flange. The weight has a weighted body and a clip securely attached thereto. The body defines a recess therein, and the clip has a securing portion formed to be securely positioned within the recess defined in the body, as well as a grasping portion for securely grasping the flange. The recess of the body allows the clip to be positioned with respect to such body so that the body is shifted toward the mounted-to wheel to achieve a proper fit to the wheel. That is, without the recess, the body would be farther away from the wheel and will not fit as well to such wheel. The securing portion of the clip is secured within the recess by flowing a portion of the body adjacent such clip into contact therewith.

In addition, claim 1 recites that the body has an outboard face for facing away from the mounted-to wheel and an opposing inboard face for facing toward the mounted-to wheel, and the body defines the recess to extend along the inboard face. Also, the body has an inner radial face for facing toward an axis of the mounted-to wheel and an opposing outer radial face for facing away from the axis of the mounted-to wheel, and the body further defines the recess to transition from the inboard face and along the outer radial face. The securing portion of the clip includes a substantially planar radial portion positioned within the recess substantially parallel to the inboard face, and a substantially planar axial portion positioned within the recess substantially parallel to the outer radial face.

Claim 1 also recites that the body in defining the recess includes a pair of opposing lateral sides that demarcate the recess and define a width of such recess, and that the securing portion of the clip has a pair of opposing lateral edges that define a width of such securing portion, where each lateral edge of the securing portion of the clip corresponds to a lateral side of the recess of the body. The width of the securing portion of the clip is

substantially the width of the recess of the body, and with the securing portion of such clip positioned within such recess, each lateral edge of the securing portion of the clip is in a substantially abutting position with respect to the corresponding lateral side of the body.

The securing portion of the clip is secured within the recess by flowing each lateral side of the body toward the corresponding lateral edge of the securing portion of the clip, whereby the clip is prevented from at least circumferential and axial movement with respect to the mounted-to wheel. Each lateral edge of the securing portion of the clip defines a plurality of lateral serrations therein. The lateral serrations on each lateral edge extend along the corresponding lateral side of the recess with the securing portion of the clip positioned within the recess, and substantially all of the lateral serrations interact with the flowed lateral sides of the body to prevent the clip from radial movement with respect to the mounted-to wheel.

As amended, claim 1 newly recites that the body is formed from a steel material, and that each lateral side of the body is substantially linear prior to being flowed toward the corresponding lateral edge of the clip. Significantly, the steel material of the body is sufficiently ductile such that each lateral serration of each lateral edge is substantially completely contacted by the respective lateral side of the body after such lateral side is flowed toward the corresponding lateral edge of the clip having such lateral serration. As a result, such substantially complete contact ensures that the clip is prevented from radial movement with respect to the mounted-to wheel.

Independent claim 13 as amended recites substantially the same subject matter as claim 1 although in the form of a vehicle having the wheel with the flange and the weight mounted to such flange.

As was previously noted, and as was set forth in the background section of the present application, a wheel-balancing weight previously was typically constructed to have a body formed from lead or the like as a unitary mass around a steel clip, where the steel clip securely clips on to an exterior circumferential flange or lip at the rim of the wheel. However, the use of lead has come to be discouraged for environmental reasons , among others.

Accordingly, the body of the wheel-balancing weight may now be formed from a material other than lead, such as for example the recited steel. However, and as should be appreciated, such steel weight cannot be easily formed as a unitary mass around the clip for the reason that the steel has a higher melting point as compared to lead. Thus, the clip must be attached to the steel weight at a surface of such weight. Note, though, that the clip must be attached to the body in a secure manner so that the clip does not move axially, circumferentially, or radially with respect to the body. Thus, in the present invention, a securing portion of the clip is positioned within a recess of the body to prevent circumferential movement and material adjacent the lateral edges of the securing portion of the clip is flowed into contact therewith to prevent axial movement.

Significantly, to prevent radial movement, each lateral edge of the securing portion of the clip is provided with a plurality of serrations that co-act with the flowed material to radially secure the clip with respect to the body.

The Oba reference discloses in Figs. 1-3 an embodiment of a wheel-balancing weight with a body having a recess for securing a securing portion of a clip. In the embodiment of Figs. 1-3, and as relied on by the Examiner, each lateral edge of the securing portion of the Oba clip has a serration, and for each serration the corresponding lateral side of

the Oba body has a corresponding protrusion of material that causes the lateral side to be non-linear. Thus, and significantly, the Oba reference does not disclose that each lateral side of the Oba body is substantially linear prior to being flowed toward the corresponding lateral edge of the clip, as is required by the claims of the present application.

Moreover, the Oba reference would not suggest or even hint at such linear lateral sides for the reason that the Oba reference takes pains to emphasize that the Oba body is to be formed from a ductile cast iron even though such ductile cast iron has only middling, yet sufficient, ductility (See, column 4, lines 23-38). In contrast, the body of the present invention as recited in the claims is formed from a steel material, which as may be appreciated has better ductility than cast iron. Notably, the trade-off for employing the ductile cast iron rather than a more ductile material such as a steel material is that the ductile cast iron cannot be flowed as far when securing the Oba clip within the Oba body. Accordingly, and as disclosed in the Oba reference, each lateral side of the Oba body is not in fact linear but instead is formed to specifically include a prominent protrusion that keys to a corresponding serration. As should be understood, the primary purpose of such Oba protrusion is to reduce the distance that the ductile cast iron must flow to substantially completely contact and engage each Oba serration, especially inasmuch as the ductility of such cast iron limits the available flow distance.

In contrast, the present invention as recited in the claims specifies that the body is formed from a steel material, which as again may be appreciated has a higher ductility and thus can flow farther. As a result, the lateral sides of the body of the present invention can be formed to be substantially linear, which as may be appreciated reduces both

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material costs and fabrication costs with regard to forming the bodies of wheel weights, as well as the cost to mount the clip to the body.

To summarize, the Oba reference does not appreciate that by employing a steel material to form the body, such body may be efficiently formed with linear lateral sides that can be flowed further to substantially completely contact corresponding serrations in the clip, thereby more thoroughly securing the clip radially. Instead, the Oba reference must take the extra step and cost of equipping the ductile cast iron with the aforementioned protrusions. Thus, Applicant respectfully submits that the Oba reference does not disclose or even suggest the subject matter now recited in independent claims 1 and 13 or any claims depending therefrom. Accordingly, and for all the aforementioned reasons, Applicants respectfully submit that the Oba reference cannot be applied to make obvious such claims. Thus, Applicant respectfully requests reconsideration and withdrawal of the § 103(a) rejection.

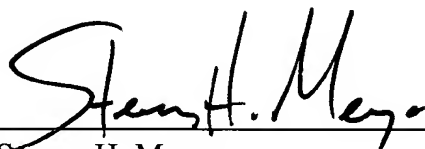
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In view of the foregoing discussion, Applicant respectfully submits that the present application, including claims 1-3, 5, 8, 9, 13, 14, 16, and 19, is in condition for allowance, and such action is respectfully requested.

Respectfully Submitted,

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